

Please cancel Claim 1, and amend Claims 2, 3, 4 and 9 as follows. Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i - ii).

2. (Amended) A method of delivering an agent of interest into and/or across a luminal surface of vascular endothelium in a tissue-specific manner, comprising the steps of:
  - a) selecting an agent of interest that binds to and localizes to a component of caveolae of the luminal surface of the vascular endothelium upon contact with the luminal surface, wherein the component to which the agent binds and localizes is tissue specific; and
  - b) contacting the luminal surface of vasculature with the agent of interest, thereby delivering the agent into and/or across the luminal surface of the vascular endothelium in a tissue-specific manner.
3. (Amended) A method of delivering an agent of interest across a luminal surface of vascular endothelium and from one side of an underlying cell to another side in a tissue-specific manner, comprising the steps of:
  - a) selecting an agent of interest that binds to and localizes to a component of caveolae of the luminal surface of the vascular endothelium upon contact with the luminal surface, wherein the component to which the agent binds and localizes is tissue specific; and
  - b) contacting the luminal surface of vasculature with the agent of interest, thereby delivering the agent across the luminal surface of the vascular endothelium and from one side of an underlying cell to another side in a tissue-specific manner.
4. (Amended) The method of Claim 3, wherein the agent of interest comprises an active agent component and a transport agent component, wherein the transport agent component binds to and localizes to a component of caveolae of the luminal surface of the vascular endothelium.